

## ABSTRACT

A method of cell search in a wireless communication systems having a plurality of base stations and a mobile station, each of the plurality of base stations serving a separate cell within a service area and transmitting a common primary synchronisation code in a primary synchronisation channel within a radio frame slot, the method including the steps of: (a) scanning through radio channels in scanning increments corresponding to standard channel raster; (b) estimating PSC signal-to-noise ratio of each channel; (c) if above a threshold level, completing cell search procedure for that radio channel; (d) if cell search procedure successfully completed for the radio channel in step (c), increasing the scanning increments to broadcast frequency separation between cells; (e) when all radio channels scanned in step (d), sorting them in descending order by PSC signal-to-noise ratio; and (f) performing the cell search procedure on each sorted radio channel in descending order.